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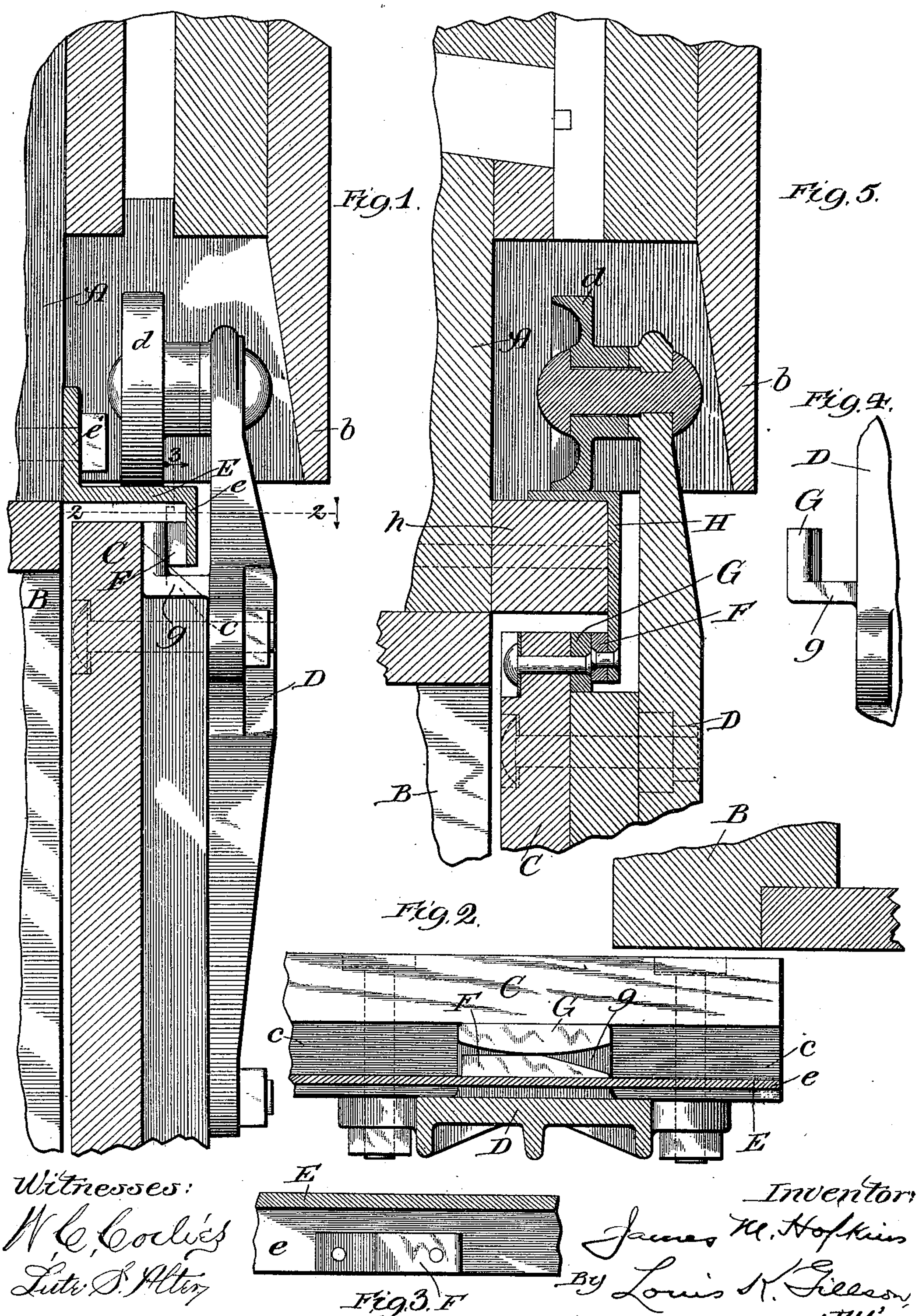
J. M. HOPKINS.

CAR DOOR.

(Application filed Jan. 23, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JAMES M. HOPKINS, OF CHICAGO, ILLINOIS.

CAR-DOOR.

SPECIFICATION forming part of Letters Patent No. 622,360, dated April 4, 1899.

Application filed January 23, 1899. Serial No. 703,098. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HOPKINS, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification and which are fully illustrated in the accompanying drawings, which form a part thereof.

This invention relates to sliding doors for freight-cars; and its object is to provide means for wedging the door tightly against the frame when closed, the wedging device being released as the door is moved in opening, so as to permit its carrying-wheels to run freely on their track and allow the door to swing out of frictional contact with the side of the car-body. These objects are attained by the construction hereinafter fully described and which is illustrated in the accompanying drawings, in which—

Figure 1 is a detail vertical section of the side of a car and of the door. Fig. 2 is a detail section on the line 2 2 of Fig. 1. Fig. 3 is a detail on the line 3 3 of Fig. 1. Fig. 4 is a detail of an element of the wedging device, and Fig. 5 is a detail section similar to that shown in Fig. 1 and representing modifications in the construction.

In all of the figures some of the parts are shown in elevation.

A portion of the side wall of the car-body is represented at A, of one of the uprights of the door-frame at B, of the facia at *b*, and of the door at C. The door is shown as double—that is to say, made of two thicknesses of material—and the outer one is cut away across the top, giving the upper edge of the door the form of a rabbet. Within the angle of this rabbet there is set a triangular fillet *c* for the purpose of shedding water.

The hangers D may be of any desired form and are secured and bolted to the door, as shown, projecting upwardly and being provided with suitable wheels or rollers *d*, which run upon a track E. This track may be varied in form. Preferably it is Z-shaped, having an upstanding flange *e'*, by means of which it is secured to the side of the car, and at its outer edge a pendent flange *e*, which overhangs the door. The inner face of the flange *e* is provided with a boss F, one end of which is beveled. This boss may be formed in any desired manner. As shown and preferred, it consists of a small casting riveted to the flange. A corresponding block G, having one of its ends beveled, rests against the upright wall of the rabbet at the upper edge of the door and coöperates with the boss F, the fillet *c* being cut away to accommodate it. The boss F and block G are so disposed that they come into engagement when the door is closed and are disengaged as soon as the door moves in opening. The effect of their joint action is to throw the door tightly against the casing, thereby preventing the admission of dust and obviating the rattling of the door and facilitating its proper fastening. The parts F and G are preferably, though not necessarily, located under the door-hangers, a pair being used in connection with each hanger.

Preferably the block G is formed integrally with the hanger D, being connected therewith by means of a stem or arm *g*, as plainly shown in Figs. 1 and 4; but, if desired, it may be bolted or riveted directly to the body of the door, as shown in Fig. 5.

The track-rail E need not necessarily be of Z form; but preferably its tread portion should be smooth—*i. e.*, without either rib or groove—so that the wheels or rollers *d* may be allowed some lateral play. When a track-support *h* is secured to the side of the car, as shown in Fig. 5, the track-rail H may comprise a simple angle-bar, one flange of which rests upon the top of the support *h*, the other flange depending and overhanging the door.

I claim as my invention—

1. The combination with a car-body having a doorway, a hanger-track secured to the car-body above the doorway, and having a flat tread portion and a pendent flange, a door having its upper edge projecting within the track-flange, and hangers secured to the door and running upon the track, of coöperating wedge or cam pieces secured respectively to the inner face of the track-flange and the outer face of the door, and so disposed that they engage as the door arrives at the closed

position and force the door against the car-body, and are out of engagement during the remainder of the travel of the door.

2. The combination with a sliding door, of a hanger-track above the door and having a pendent flange overhanging the door, a hanger secured to the door and engaging the track, and having an integral arm projecting within the track-flange, a wedge-block carried by such arm, and a wedge-boss carried by the track-flange and coöperating with the wedge-block to force the door away from the flange.

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