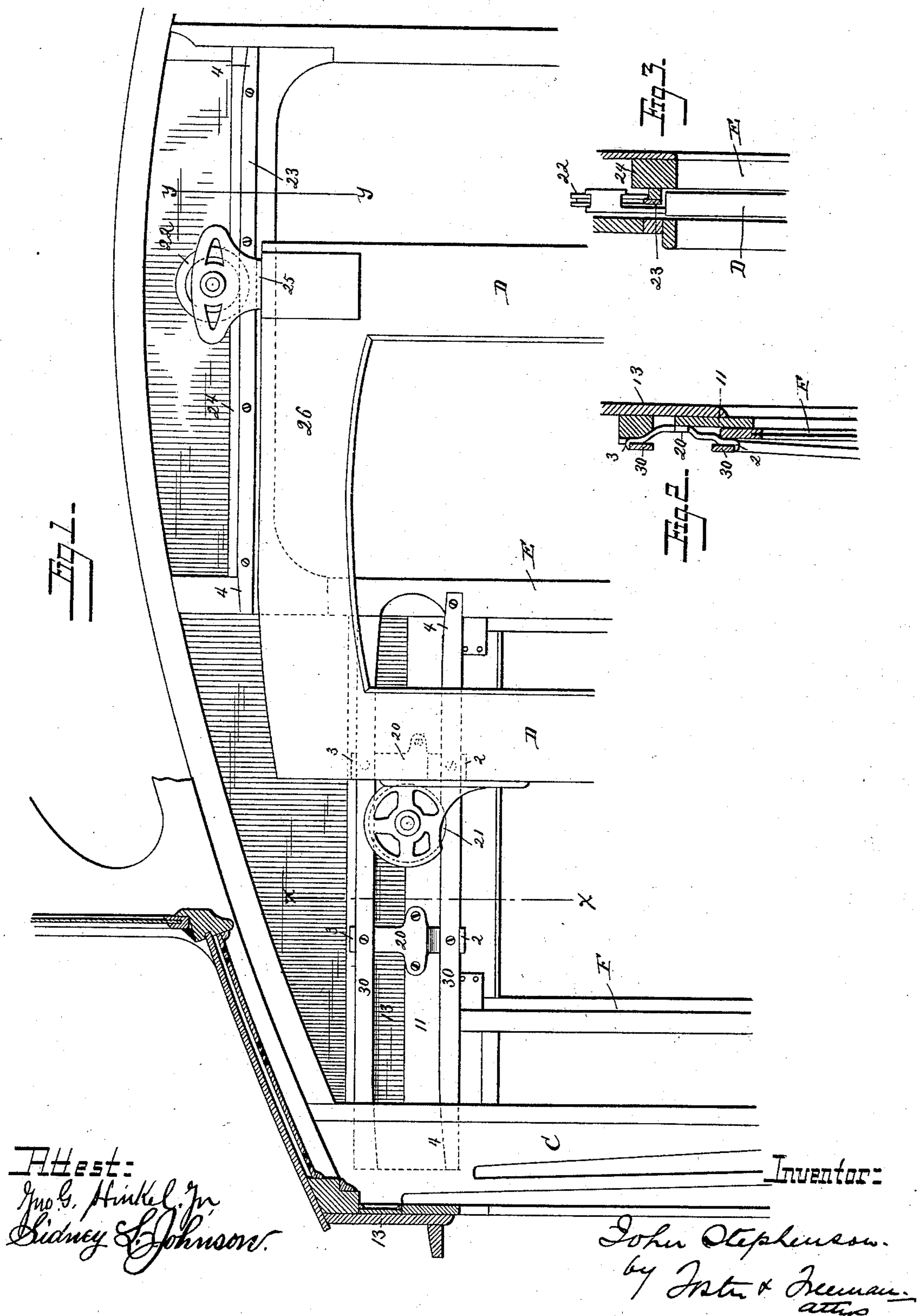


(No Model.)

J. STEPHENSON.
TRAM CAR DOOR HANGING.

No. 378,472.

Patented Feb. 28, 1888.



UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

TRAM-CAR-DOOR HANGING.

SPECIFICATION forming part of Letters Patent No. 378,472, dated February 28, 1888.

Application filed June 9, 1887. Serial No. 240,841. (No model.)

To all whom it may concern:

Be it known that I, JOHN STEPHENSON, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Tram-Car-Door Hanging, of which the following is a specification.

The demand of tram-car patrons is for more window-glass, especially high sashes, and this is often desirable without extensive changes in the present construction of the car. One of the difficulties in the way is the door-hanging, the traveling sheave and its supporting-rails which carry the back edge of the door being at so low a level that the sash, if materially higher than usual, would strike the track-rail on which the door-sheave travels. The rails and sheaves cannot be raised as needed, because of the lowness of the car-roof, and also because of signaling mechanism often necessarily there located.

My invention herein described remedies the difficulties, and is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of one end of a tram-car looking from the interior of the car. Fig. 2 is a vertical section of the same, taken on the line *x*; and Fig. 3 is a like view taken on the line *y* of Fig. 1.

In carrying out my invention I secure against the end head-panel, 13, inside and at proper height, between the corner pillar, C, and the door-standing-pillar E, a rail or bar, 30, to which is fixed one or more metal hangers, 20, so formed that the lifted sash F can pass up behind the metal hanger and the rail, as in Fig. 2. The foot 2 of the hanger is made to hold the lower track-rail on which the door-sheave 21, secured to the rear of the door D, travels, and the head 3 of the hanger sustains the upper rail, 30, which holds down the sheave, preventing it from leaving the track. The lock-edge of the door D is carried by a sheave, 22, above the door-lintel. The sheave travels on a track-rail, 23, secured to the lintel 24, and a pendent limb, 25, from the sheave-housing passes down through a slot in the lintel and takes hold of the door-head 26 and carries that edge of the door, while the back sheave, 21, before described, carries its edge of the door and travels on its rail at a lower level than the lintel-rail, care being observed that the pendent brackets are so limited in the projection as not to interfere with the sliding of

the door when being closed or opened. This arrangement of door-hanging at the top of the door is superior, not only because it accomplishes the purpose of accommodating the tall window-sash, but the sheave-rails at the top of the doors are clean and noiseless, and the door moves more easily than doors on bottom sheaves, which are subject to mud, dirt, straw, snow, ice, and other obstructions. The riding edges of the ends of rails 23 30 are depressed, as at 4, so that as the traveling sheaves reach the limit of their movement in the open or closed position of the door D the tendency will be to hold the door in either of said positions and against accidental movement during the travel of the tram-car.

I claim—

1. A sliding-door hanger for tram-cars, consisting of a sheave mounted on the top of the door and traveling on a rail secured to the lintel above the door-opening, a second sheave mounted on the door on a level below the other sheave, a rail, and a bracket adapted to suspend said rail a distance removed from the car end and on which rail said second sheave is adapted to travel, substantially as described.

2. A sliding-door hanger for tram-cars, consisting of two sheaves mounted on the door at different levels, a rail for the upper sheave, a rail upon which the lower sheave is adapted to travel, and a bracket sustaining said rail secured to the car end to leave a space between the rail and bracket and the car end for the passage of the head-rail of a window-sash, as and for the purpose described.

3. A sliding-door hanger for tram-cars, consisting of one sheave mounted on top of the door, a rail secured above the door-lintel upon which said sheave travels, a second sheave mounted to the back edge of the door and traveling on a rail below the level of the first rail, and brackets supporting said second rail to extend a distance from the head-panel of the car end to allow the head-rail of the end sash to pass between said panel and the brackets and rail, as and for the purpose described.

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

JOHN STEPHENSON.

Witnesses:

S. A. STEPHENSON,
JOS. B. STEPHENSON.