

No. 873,175.

PATENTED DEC. 10, 1907.

G. W. SAYRE.
CAR DOOR.

APPLICATION FILED APR. 25, 1907.

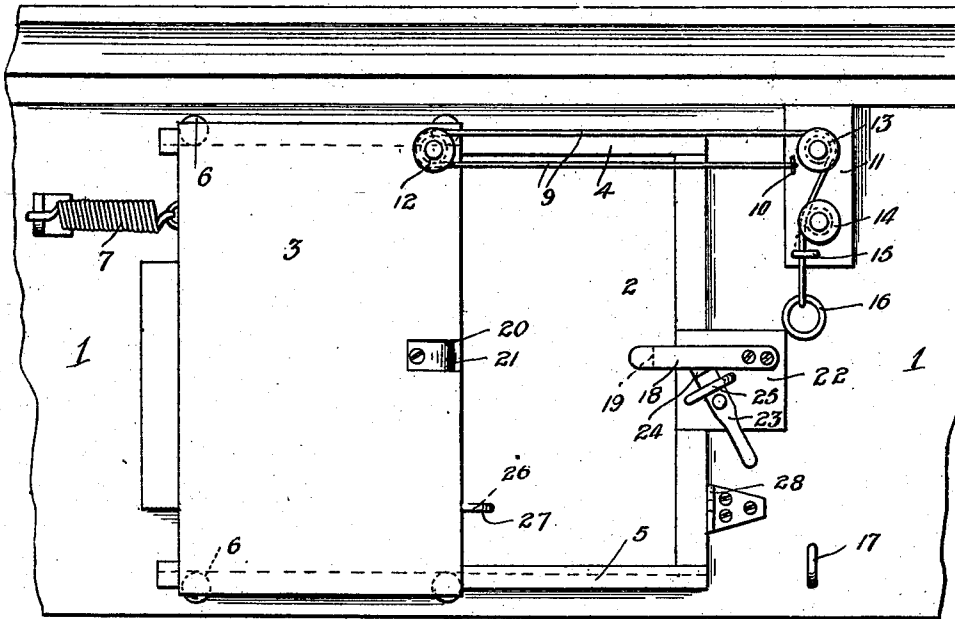


FIG. 1.

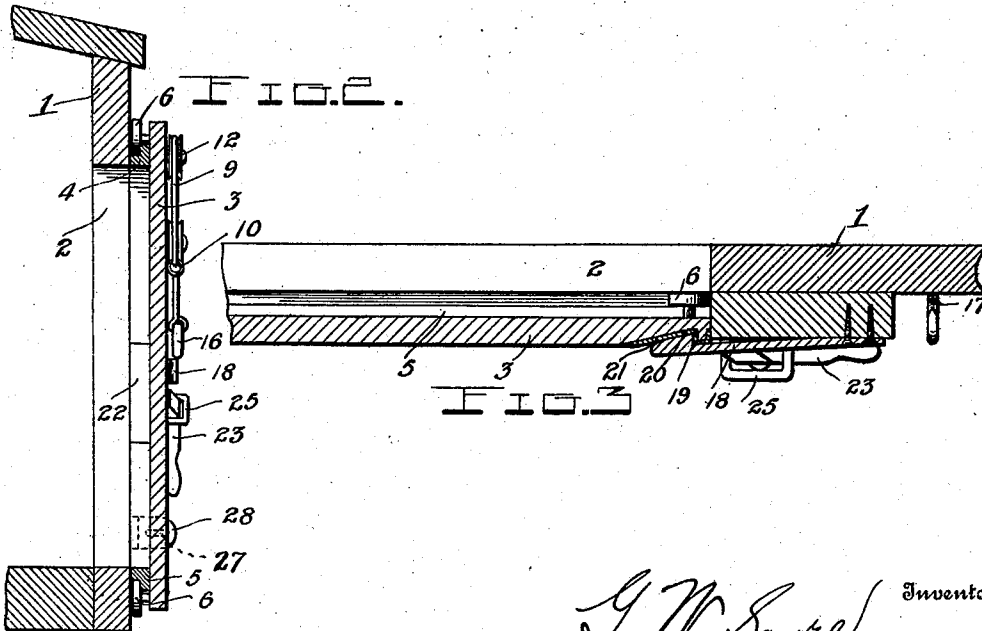


FIG. 2.

Witnesses

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GEORGE W. SAYRE, OF STEVENS, WEST VIRGINIA.

CAR-DOOR.

No. 873,175.

Specification of Letters Patent.

Patented Dec. 10, 1907.

Application filed April 25, 1907. Serial No. 370,249.

To all whom it may concern:

Be it known that I, GEORGE W. SAYRE, a citizen of the United States, residing at Stevens, in the county of Mason and State of West Virginia, have invented certain new and useful Improvements in Car-Doors, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in doors for freight cars and the like.

The object of the invention is to provide a simple and practical means for operating sliding doors of this character and for securing the same in their closed position.

With the above and other objects in view the invention consists in the novel features of construction and combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of a portion of a car, showing the application of my invention thereto, the door being in its open position; Fig. 2 is a vertical transverse section; and Fig. 3 is a detail horizontal section.

In the drawings, the numeral 1 denotes the side wall of a freight car, or any other structure, having a door opening 2 adapted to be closed by a sliding door 3. The door is hung by and slides upon suitable horizontally arranged grooved track bars 4, 5 suitably secured upon the wall 1 above and below the door opening and extending a suitable distance to one side of the same to support the door while open. At the top and bottom of the door upon its inner face are journaled rollers 6 which engage the grooved track bars 4, 5, as clearly shown in Fig. 2.

Any suitable means may be employed for actuating the door to its open position and holding it in such position, but as illustrated, I employ a coil spring 7 having one of its ends suitably attached to the wall 1 and its other end connected to one edge of the door adjacent to its top. A suitable stop 8 projects from the wall 1 and is engaged by the door to limit its opening movement under the action of the spring 7.

For the purpose of moving the door to its closed position, I preferably provide a cable or other flexible element 9 attached at one of its ends, as at 10, to a bearing block 11 and passed first around a guide pulley 12 journaled upon the outer face of the door near its

top, then over or around two guide pulleys 13, 14 arranged one above the other and journaled upon the block 11 which latter is suitably secured to the wall 1, as clearly shown in Fig. 1. The depending free end of the operating cord or cable 9 passes through a guide eye 15 upon the block 11 and is attached to a hand loop or bail 16. When this bail is pulled downwardly it will be seen that the cable will be drawn upon to actuate the door to its closed position. A suitable hook or support 17 is arranged upon the lower portion of the wall 1 for holding the hand loop 16 when the door is closed.

My preferred means for holding the door in its closed position comprises a spring latch bar 18 having a hook shaped outer end 19 adapted to engage a shoulder 20 formed by an angular keeper plate 21 which is set in the outer face of the door adjacent to the center of one of its vertical edges. The resilient latch bar 18 has its inner end suitably secured upon an attaching block 22 arranged upon the wall 1, and it is actuated or moved outwardly to disengage its hook 19 from the keeper 20 by means of a hand lever 23 pivoted intermediate its ends and having a handle at its lower end and a tapered or cam shaped portion 24 at its upper end adapted to project between the latch bar 18 and its support 22, as shown in Figs. 2 and 3. When the lever 23 is actuated in one direction its end 24 will permit the latch bar 18 to spring inwardly and when actuated in the opposite direction will spring said bar outwardly to release the door. The lever is limited in its movement by a yoke or bail 25, more clearly shown in Fig. 3.

For the purpose of locking and sealing the door in its closed position, I provide upon one of its edges a loop or eye 26 which is adapted to project through a slot in a right angular keeper plate 28 secured upon the wall 1. When the loop or eye 27 projects through the slot in the plate 28 a padlock, a locking pin, a seal or any other locking or sealing device may be engaged with it, as will be readily understood.

From the foregoing description taken in connection with the accompanying drawings it is thought that the construction, operation and advantages of the invention may be readily understood without a more extended explanation.

Having thus described my invention what

I claim and desire to secure by Letters Patent is:—

1. The combination with a support having an opening, of a door slidable over the opening and provided with a keeper recess, a resilient latch bar secured at one of its ends to the support and having a beveled and hook-shaped portion at its free end to engage the keeper recess in the door and a lever pivoted intermediate its ends upon the support and having a handle at one end and a beveled or cam portion at its other end, said beveled or cam portion being adapted to engage the inner or under face of the latch bar to actuate the free end of the same outwardly and disengage it from the keeper recess in the door, substantially as described.

2. The combination with a support having an opening, of a door slidable over said opening, an eye fixed upon one edge of the door and projecting horizontally therefrom and a right angular keeper plate having one member secured upon said support and its other member projecting outwardly at right angles from the same and formed with a hori-

zontal slot adapted to receive the eye upon the edge of the door, substantially as shown and for the purpose specified.

3. The combination with a support having an opening and track bars arranged at the top and bottom of said opening, of a door, rollers carried by said door to engage said track bars, a spring for moving said door to its open position, a stop for limiting the opening movement of the door, a guide pulley upon said door, a block upon said support, vertically alined guide pulleys upon said block, a guide eye upon said block, a cable attached at one end to said block and passed around the pulleys upon said block and said door and through said guide eye, a hand loop upon the free end of said cable, and a spring latch for holding said door in its closed position.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GEORGE W. SAYRE.

Witnesses:

MARY RAY,
ZUBAH RAY.