

June 19, 1934.

E. E. SCHLESINGER

1,963,152

RAILWAY CAR DOOR OPERATING DEVICE

Filed Aug. 9, 1933

3 Sheets-Sheet 1

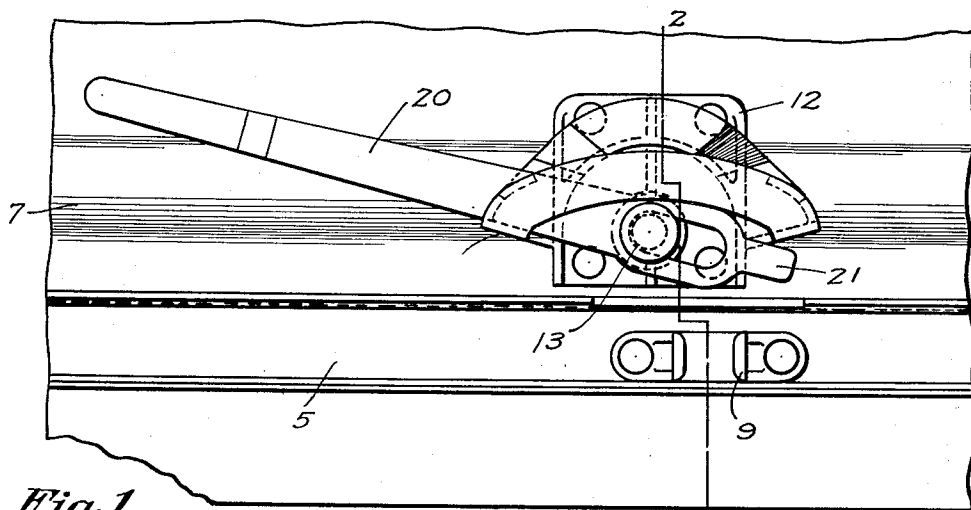


Fig. 1

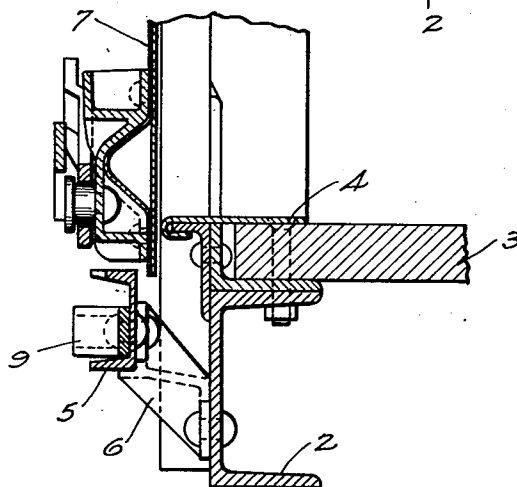


Fig. 2

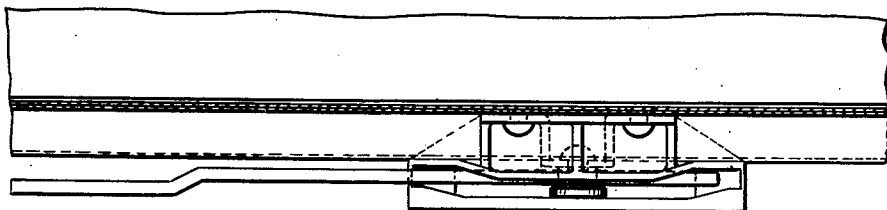


Fig. 3

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3 Sheets-Sheet 2

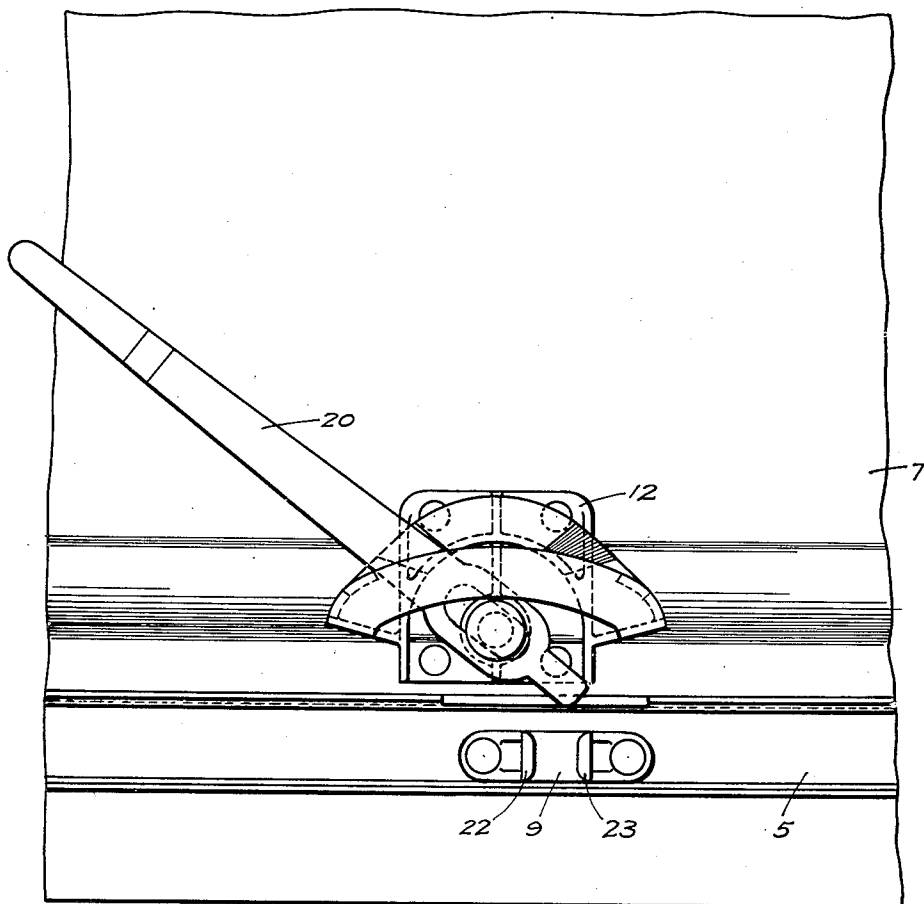


Fig. 4

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Fig. 5

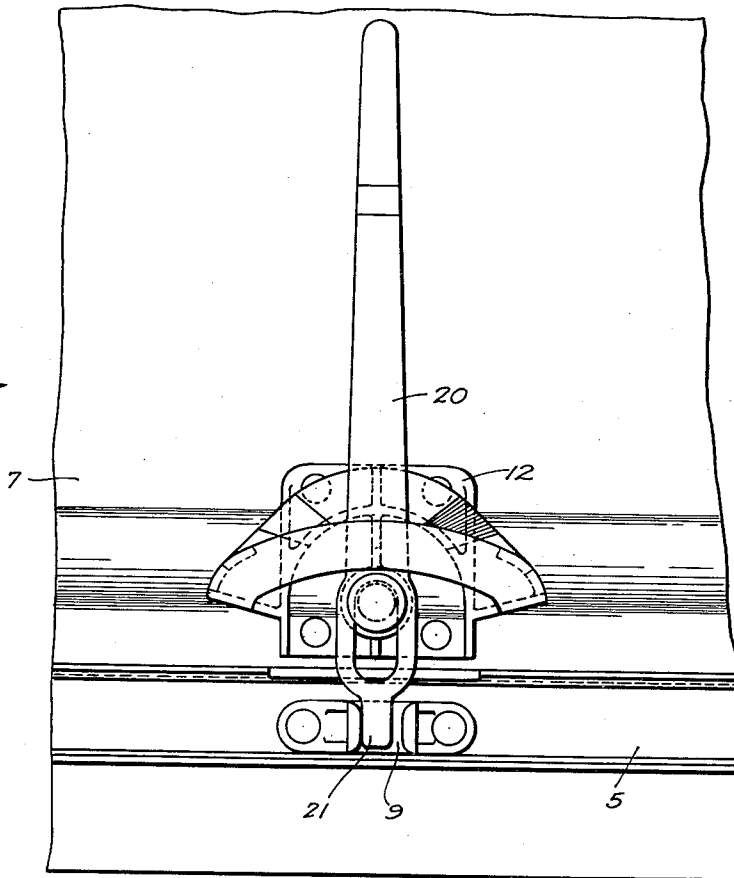


Fig. 6

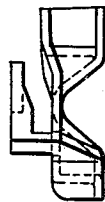
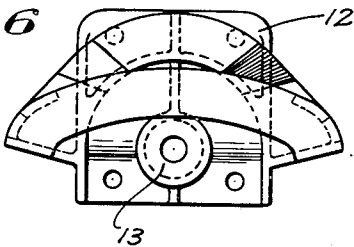
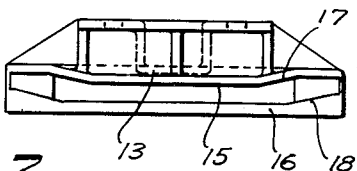


Fig. 8

Fig. 7



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UNITED STATES PATENT OFFICE

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RAILWAY CAR DOOR OPERATING DEVICE

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Application August 9, 1933, Serial No. 684,313

6 Claims. (Cl. 268—44)

The invention relates to horizontally movable doors for railway freight cars and specifically to a device for forcibly initially opening such doors, which means may also be used to forcibly
5 close such doors. Such devices are necessary because, due to the distortion and bending of the door and associated parts of the car in service, the doors bind and wedge in the weather-proofing strips, and, furthermore, the modern freight car
10 door is very heavy, due to steel reinforcements being used. The sizes of the side doors of railway cars built for the transportation of automobiles are frequently very large and consequently heavy. Some doors are made of all steel and comprise
15 corrugated metallic plates reinforced with metallic bars.

An object of the invention is to provide means to move the outer end of the handle of such a device toward the door when the handle moves from
20 an upright or operative position to a lowered position of rest so that when not in use the outer end of the handle will be close to the door and out of the way so as not to be dangerous, as it might otherwise hit objects or persons adjacent
25 the moving car, causing damage to the object or person as well as to the handle and the device itself. However, when the handle is in upright or operative position the handle is far enough away from the door to enable the operator to get
30 a full grip on the handle and forcibly operate the device without scraping his knuckles against the door.

Another object is to incorporate in such a device means to move the outer end of the handle
35 away from the door when the handle moves from a substantially horizontal position to an upright position.

In the drawings:

Fig. 1 shows the device in normal position.

40 Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a plan view of Fig. 1.

Fig. 4 shows the device with the handle partially raised.

45 Fig. 5 shows the device with the handle in upright position.

Figs. 6, 7 and 8 show the bracket on the door in detail.

In the drawings the usual parts of the car are shown, such as side sill 2, floor 3, threshold plate
50 4, side door track 5, track brackets 6 and side door 7.

In the form illustrated the horizontally movable door 7 is provided with rollers (not shown) which engage the track 5. A projection 9 is shown
55 mounted upon the track 5 below the door but may

be mounted upon any convenient part of the car.

The bracket 12 is mounted upon the door and comprises a pintle 13 and a horizontally disposed slot between spaced apart inner guideway 15 and outer guideway 16. Each of these guideways is
60 provided with an inclined surface 17—18. (See Fig. 7.) A lever 20 is pivotally and preferably also slidably mounted upon the pintle 13 to move in a substantially vertical plane within the slot; that is, between the inner guideway 15 and the
65 outer guideway 16. This lever 20 is provided with an extension 21 to engage the projection 9 to move the door. The lever is preferably arranged to engage the projection so as to move the door in either direction. The projection is shown as
70 spaced apart lugs 22—23 but may be a single projection and come within the scope of the invention.

The device normally is in the position of rest shown in Fig. 1; that is, with the lever 20 lying
75 in a substantially horizontal position with the outer end of the handle adjacent the door. To operate the device the outer end of the handle is gripped lightly and upon a slight movement it engages the inclined plane 17 on the inner
80 guideway 15 which moves the outer end of the handle away from the car, at which time the lower end of the lever or extension 21 engages the projection 9 and a further movement of the lever moves the door.
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When the lever has moved the door it is released by the operator and as it moves from a substantially upright position to a lowered position it engages the inclined surface 18 of the outer guideway 16 and the outer end of the
90 handle is moved toward the car. When the door is moved further the lever is held in the horizontal position by gravity so that it will not interfere with the projection or the track.

The accompanying drawings illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof, within the scope of the claims, will
100 occur to persons skilled in the art.

I claim:

1. In a railway car having a horizontally movable door, a projection on the car below the door, a bracket mounted upon the door provided with
105 a pintle and a horizontally disposed slot, and a lever pivotally and slidably mounted upon the pintle to move in a substantially vertical plane within the slot to engage said projection to move the door, said slot formed to move the outer
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end of the lever toward the door as the lever moves from an upright position to a substantially horizontal position.

2. In a railway car having a horizontally movable door, a projection on the car below the door, a bracket mounted upon the door provided with a pintle and a horizontally disposed slot, and a lever pivotally and slidably mounted upon the pintle to move in a substantially vertical plane within the slot to engage said projection to move the door, said slot formed to move the outer end of the lever away from the door as the lever moves from a substantially horizontal position to an upright position.

3. In a railway car having a horizontally movable door, a projection on the car below the door, a bracket mounted upon the door provided with a pintle and a horizontally disposed slot, and a lever pivotally and slidably mounted upon the pintle to move in a substantially vertical plane within the slot to engage said projection to move the door, said slot formed to move the outer end of the lever toward the door as the lever moves from an upright position to a substantially horizontal position and to move the outer end of the lever away from the door as the lever moves from a substantially horizontal position to an upright position.

4. In a railway car having a horizontally movable door, a projection on the car below the door,

a bracket mounted upon the door provided with a pintle, a lever pivotally and slidably mounted upon the pintle to engage said projection to move the door, and means to move the outer end of the lever toward the door as the lever moves from an upright position to a substantially horizontal position.

5. In a railway car having a horizontally movable door, a projection on the car below the door, a bracket mounted upon the door provided with a pintle, a lever pivotally and slidably mounted upon the pintle to engage said projection to move the door, and means to move the outer end of the lever away from the door as the lever moves from a substantially horizontal position to an upright position.

6. In a railway car having a horizontally movable door, a projection on the car below the door, a bracket mounted upon the door provided with a pintle, a lever pivotally and slidably mounted upon the pintle to engage said projection to move the door, and means to move the outer end of the lever toward the door as the lever moves from an upright position to a substantially horizontal position and to move the outer end of the lever away from the door as the lever moves from a substantially horizontal position to an upright position.

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