

Dec. 16, 1924.

1,519,717

A. J. BILODEAU
FREIGHT CAR DOOR LOCK

Filed July 23, 1923

2 Sheets-Sheet 1

FIG. 1.

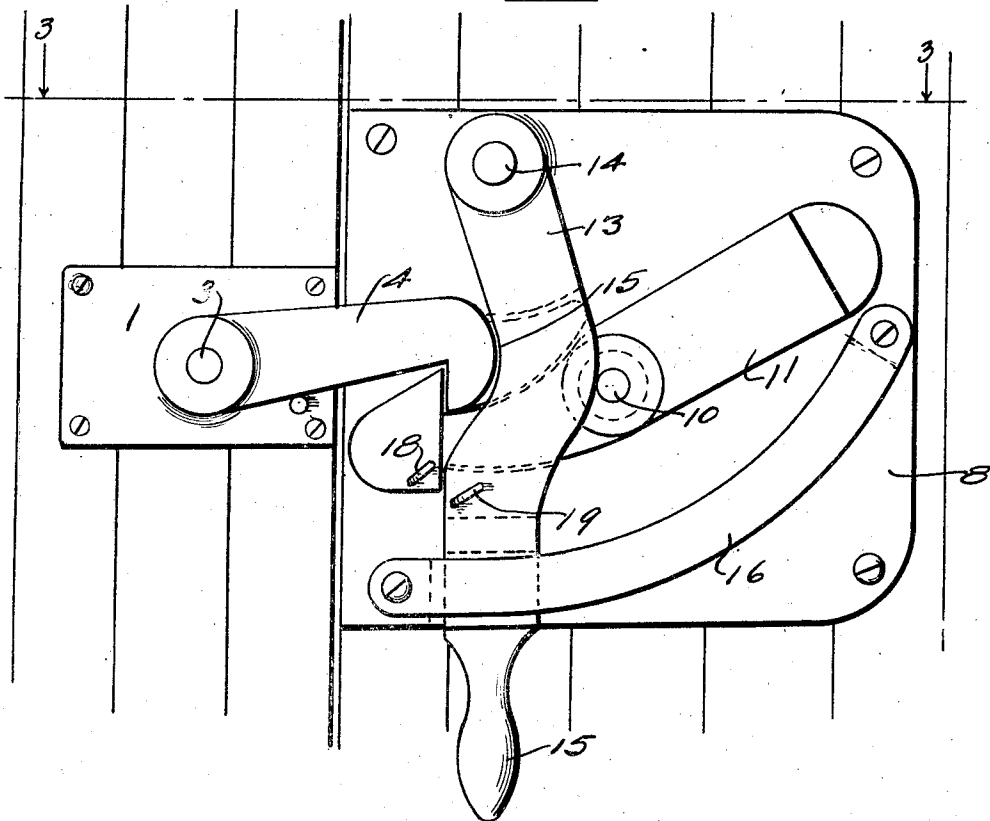
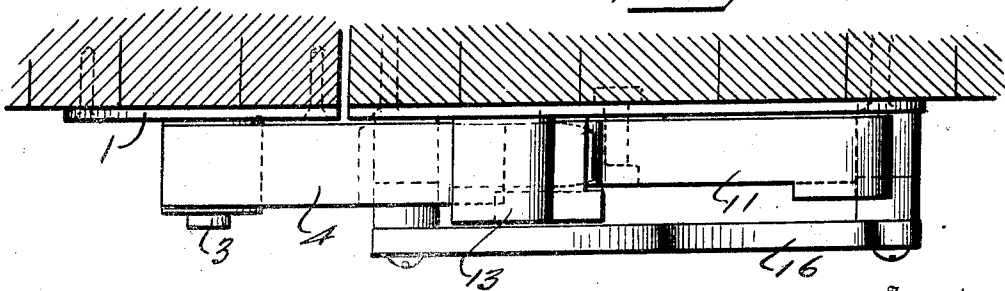


FIG. 3.



Inventor

Arthur J. Bilodeau

By

Attorney

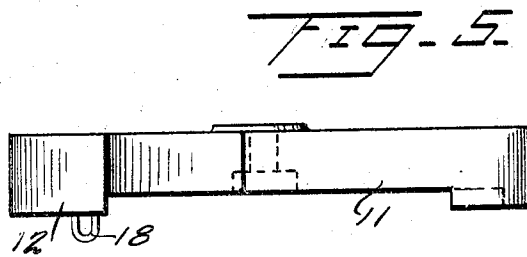
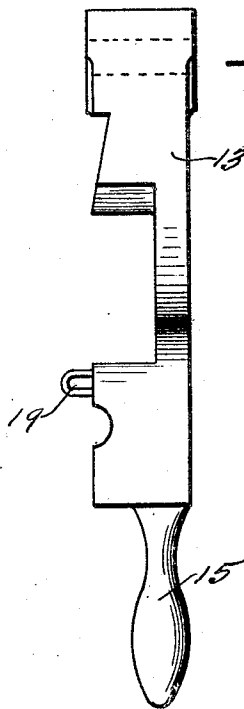
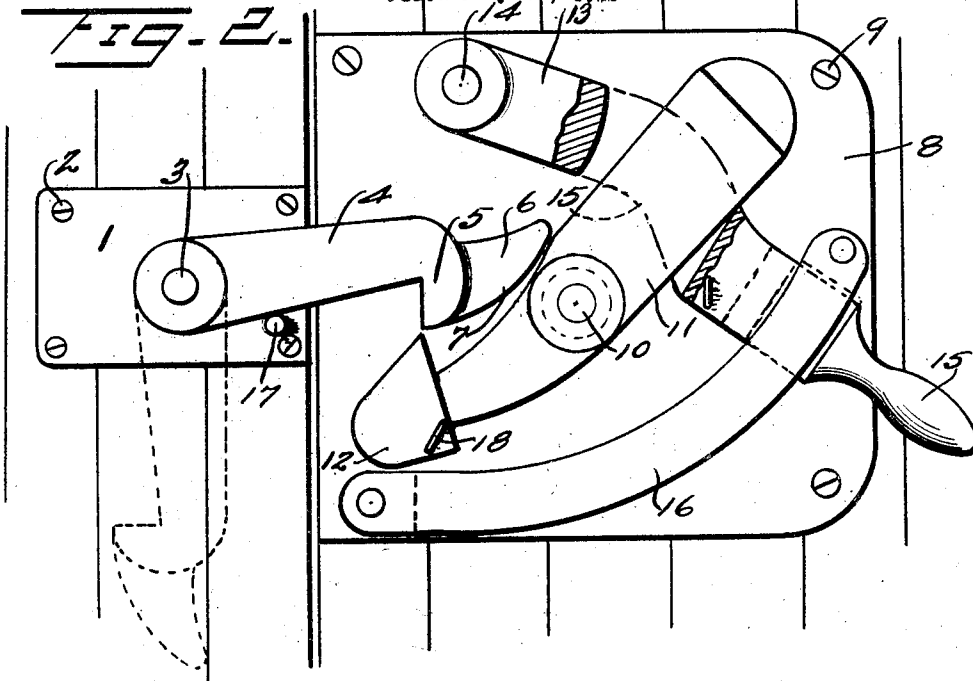
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2 Sheets-Sheet 2



Inventor

Arthur J. Bilodeau

UNITED STATES PATENT OFFICE.

ARTHUR J. BILODEAU, OF MELBOURNE, QUEBEC, CANADA.

FREIGHT-CAR-DOOR LOCK.

Application filed July 23, 1923. Serial No. 653,340.

To all whom it may concern:

Be it known that I, ARTHUR J. BILODEAU, a subject of the King of England, residing at Melbourne, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in a Freight-Car-Door Lock, of which the following is a specification.

This invention relates to sliding door locks, and more particularly to a fastener or locking device especially adapted for use on freight car doors.

One of the objects of the invention is to provide a locking or fastening mechanism, including an arrangement of engageable levers adapted to be manually operated whereby the locking device may be easily opened or closed.

Other objects of the invention will appear upon consideration of the following detailed description and accompanying drawings, in which:

Figure 1 is a front elevation of the device constructed in accordance with my invention, showing the parts in locked position,

Figure 2 is a similar view showing the parts in released position,

Figure 3 is a cross section taken on the line 3—3 of Figure 1,

Figure 4 is a detailed view of the operating lever, and

Figure 5 is a detailed view of the locking lever.

Referring to the drawings by numerals, the side of the freight car is provided with a plate 1 fastened to the freight car by suitable fastening element 2, and this plate is provided with a pivot end 3 upon which is pivotally mounted a latch 4 having one end equipped with a latch hook 5. Extended from the latch hook 5 at the end of the latch lever 4, is a binding wedge member 6 having one edge slightly curved as indicated at 7.

The freight car door is provided with a base plate 8 secured by fastening element 9, and this base plate is provided with a centrally located pivot pin upon which a locking lever 11 is pivotally mounted. The locking lever has the pivot pin 10 located approximately intermediate the ends of the lever, and one end of the lever is equipped with locking hook 12 adapted for cooperation with the latch hook 5.

Mounted for swinging movement on the

plate 8 is an operating arm 13 attached to the pin 14 whereby the lever may freely swing. The free end of the handle 13 is equipped with a hand grip 15 whereby the operating arm or handle may be manually swung on its pivot pin 14. This operating arm, intermediate its ends, is curved and shaped to provide the curved recess or notch 16 conforming substantially to the curve of the outer end of the hook 5. This portion of the operating arm 13 is also provided with a longitudinal slot through which one end of the locking lever 11 is extended, as shown to advantage in Figure 2. A curved guard member 16¹ is secured to the plate 8 and serves to maintain the operating arm 13 in a restricted path of movement, the ends of the guard member 16¹ limiting the swinging movement of the operating arm. Forward swinging movement of the latch member 4 is limited by a stop pin 17 on the plate 1 which may be swung backwardly to the position shown by dotted lines in Figure 2 when it is not in use.

When the parts are locked together as shown in Figure 1, the ordinary sealing device may be employed by passing the wire of the sealing member through the eyelets 18 and 19 in the hook member 12 and operating arm 13 respectively, so that the parts will be sealed until the seal has been broken preliminary to opening the door.

By swinging the lever from the position shown in Figure 1 to that shown in Figure 2, the end portion of the slot in the operating arm engages the large end of the locking lever 11 and swings this lever on its pivot pin until the hook member 12 swings downwardly to disengage the hook member 5 on the latch, thus disengaging the hook members and permitting the door to be opened. When the parts are locked together, the wedge member 6 extends into the slot in the operating arm 13 and, as shown by dotted lines in Figure 1, firmly wedges the parts together so that the two hooks 5 and 12 are held in engagement when the door is locked.

Minor changes may be made in the details of construction without departing from the spirit of the invention and the scope of the claims hereunto appended.

What I claim is:

1. A freight car door lock comprising a pivoted latch provided with a latch hook,

a locking lever pivotally mounted intermediate its ends and having one end equipped with a locking hook adapted to engage said latch hook, an operating arm 5 swingingly mounted and equipped with a longitudinal slot adapted to receive the opposite end of the said locking lever, the said slot being longer than the width of the lever, and a wedge member carried by the 10 said latch member and adapted to be extended into the said slot in the operating arm, when the latter is swung to a position to embrace the hook end of the said operating arm.

2. A freight car door lock comprising a latch member swingingly mounted and provided at its free end with a hook, a curved wedge extended from the end of the said latch hook, an operating arm pivotally 20 mounted and provided with a longitudinal slot, a locking lever pivotally mounted intermediate its ends and having a locking hook at one end, the opposite end of the said locking lever being extended through the 25 said slot in the operating arm, the said slot being longer than the width of the said locking lever, whereby the said operating arm may be swung on its pivot member to raise the hook end of the said locking lever and 30 force the said wedge member into the said

slot and in engagement with the said locking lever.

3. A freight car door lock comprising a pivoted latch member, a hook carried by the end of the latch member, the said hook 35 having a curved end, a wedge member extended from the said curved end of the hook, an operating arm swingingly mounted and provided with a longitudinal slot, the operating arm having a curved recess 40 conforming to the curve of the said hook on the end of the latch member, a locking lever pivotally mounted intermediate its ends and extended through the said slot, one end of the said locking lever being equipped with 45 a locking hook adapted for cooperation with the said latch hook, the said slot in the operating arm being longer than the width of the said locking lever, whereby the said wedge member may project into the said 50 slot when the said operating arm is swung on its pivot to engage the said locking hook into engagement with the latch hook.

In testimony whereof, I have affixed my signature in the presence of two witnesses.

ARTHUR J. BILODEAU.

Witnesses:

ALDEN K. MERRILL,
A. MACRAE.