

(No Model.)

J. J. McCLIMONT & P. MARRON.
FREIGHT CAR.

No. 521,036.

Patented June 5, 1894.

Fig 1

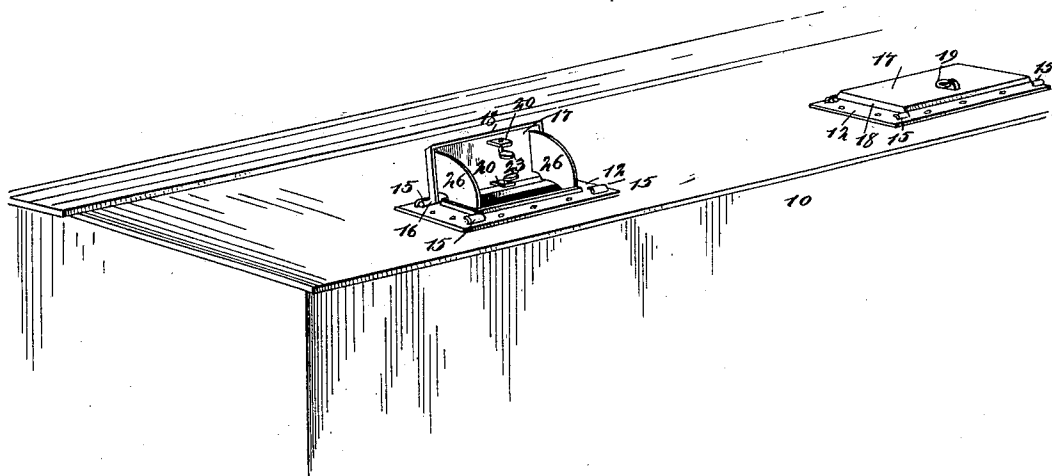


Fig 2

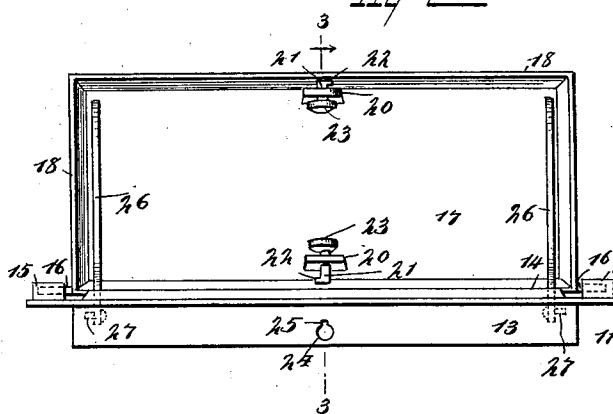


Fig 3

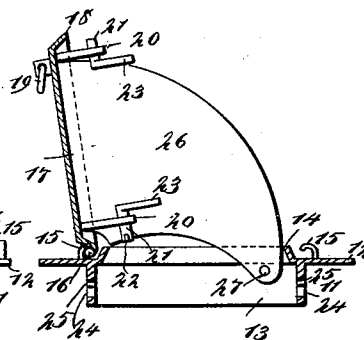
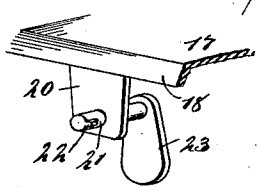


Fig 4



WITNESSES:

H. Walker
C. Sedgwick

INVENTORS

J. J. McClimont
P. Marron
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN J. McCLIMONT AND PETER MARRON, OF ASPEN, COLORADO.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 521,036, dated June 5, 1894.

Application filed May 16, 1893. Serial No. 474,607. (No model.)

To all whom it may concern:

Be it known that we, JOHN J. McCLIMONT and PETER MARRON, of Aspen, in the county of Pitkin and State of Colorado, have invented certain new and useful Improvements in Loading and Unloading Cars, of which the following is a full, clear, and exact description.

Our invention relates to improvements in an apparatus for loading and unloading cars.

The object of our invention is to provide a simple device which may be applied to the roof of a box car, so that openings in the roof may be easily made when necessary but cannot be made from the exterior of the car, to arrange the covers for these openings so that in connection with an ordinary chute they will make a hopper through which grain, ore, or other loose material may be inserted in the car, rapidly and without waste, to provide a simple lock for fastening the covers to the openings on the inside of the car, and in general to arrange the apparatus so that a car may be very quickly loaded or unloaded.

To this end our invention consists of an improved device to be applied to the roof of a car, which device will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken perspective view of a box car provided with our improved device, one of the covers being shown open and the other closed. Fig. 2 is a detail front elevation of the open cover and its frame. Fig. 3 is a cross section on the line 3—3 in Fig. 2; and Fig. 4 is a broken detail perspective view of one of the locks for the cover.

The car 10 is an ordinary box car, and it is provided in its roof with openings, there being preferably four, two at each end and near opposite sides, which openings are adapted to receive the frame 11, this being shown in detail in Figs. 2 and 3. The frame 11 is of a general rectangular shape, and it is provided with a top or horizontal flange 12 which is adapted to lie flatwise upon the car roof, with a depending flange 13 which is adapted to project downward through the opening in

the roof and lie in said opening, and with an upwardly projecting flange 14 which guards the opening and prevents water from running in and which also engages the flange on the cover to be described presently.

On the corners of the flange 12 are raised sockets 15 which are open on one side, and these are adapted to receive the pins or pintles 16 on the ends and opposite corners of a swinging cover 17, which cover is provided with a depending edge flange 18 adapted to fit snugly over the flange 14 of the frame 11. It will be observed that the cover 17 may be taken off and hung in either pair of sockets 15, so that it may swing to the right or left as desired. The cover is preferably provided with a suitable ring or hand hold 19 on top, by which it may be manipulated. When the cover is closed it fits snugly in place and the pintles 16 and sockets 15 prevent one edge from being raised, while the other may be locked on the inside as described presently, and if locked on its free edge it cannot be raised, but to provide against any possible breaking in, we provide locks on both edges. Near the center of the cover, on the under side and near opposite edges, are depending lugs or hangers 20 in which are journaled bolts 21, and these have on their sides near the ends bits 22, and on the inner ends of the bolts are weighted levers 23 which hang normally in a vertical position and which, when in this position, hold the bits 22 in a horizontal position. The bolts 21 are adapted to be pushed through the holes 24 in the flanges 13 of the frame 11 and in the upper walls of the holes 24 are recesses 25 to receive the bits 22. To lock the cover, the lever 23 is raised so as to bring the bit 22 into registry with the recess 25 and the bolt is then pushed lengthwise through the hole 24, when the lever 23 is rocked, thus turning the bit 22 out of registry with the recess 25 and behind the flange 13. The cover is thus securely locked and can be unlocked by raising the lever 23 and pulling out the bolt 21 from the flange 13.

The cover 17 has secured to its under side and opposite ends, curved wings 26, which are adapted to swing downward through the frame 11 when the cover is closed and which,

when raised, as shown in Figs. 1 and 3, form three sides of a sort of hopper above the opening to the frame, and when a grain chute or similar chute is connected with the car so as to deliver through the opening, the chute is arranged on the open side of this temporary hopper and thus forms its fourth side, so that the material discharged from the chute is guided into the car. In unloading, an elevator may be dropped through the opening, and the cover and its wings serve to prevent the spilling of the grain or other material. The wings 26 have laterally extending pins 27 at their lower ends, which are adapted to strike the under side of the frame 11 when the cover 17 is raised, and which thus prevent the upward movement of the cover. The openings in the cars and the covers for the openings are arranged near the opposite ends of the cars and on opposite ends, as described, and this enables the cars to be evenly as well as rapidly loaded, and the material is spread in the cars without the necessity of shoveling it by hand.

While this apparatus is particularly adapted for use in loading grain or other loose materials, it also serves as a bullet-proof breast-work behind which the guards of ore-laden cars may stand when it is necessary to repel an attack; that is, the covers may be swung up, as shown at the left-hand in Fig. 1, and a guard may stand with his head and shoulders through the opening beneath the cover and may thus be well shielded and still be in a position to do effective shooting.

Having thus described our invention, we

claim as new and desire to secure by Letters Patent—

1. The combination with a car, having an opening in its roof, of a frame fitted in the opening and provided with raised sockets on its upper side, a cover having end pintles to turn in the sockets, and a lock on the under side of the cover, substantially as described.

2. The combination, with a car having an opening in its roof, of a frame fitted in the opening, a cover hinged to the frame, curved wings secured to opposite ends of the cover, and a lock on the under side of the cover, substantially as described.

3. The combination, with a car, having an opening in its roof, of a frame fitted in the opening, a cover for the opening, a lock on the under side of the cover, and means for hinging the cover to opposite sides of the frame, substantially as described.

4. The combination, of the car having an opening in its roof, the frame fitted in the opening and provided with a depending flange with holes therein, a cover for the opening bolts journaled on the under side of the cover and adapted to enter the holes of the flange, bits on the bolts to turn behind the flange, and weighted levers secured to the bolts and adapted to swing them into closed position, substantially as described.

JOHN J. McCLIMONT.
PETER MARRON.

Witnesses:

JOHN R. WILEY,
H. NORRIS LYNCH.